Independent Market Operator

Final Market Rule Change Report

Title: Calculation of Reserve Capacity Refund

Ref: RC_2007_08

Date: 23 October 2007

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DOCUMENT DETAILS

IMO Notice No.: RC_2007_08
Report Title: Calculation of Reserve Capacity Refund
Release Status: Public
Confidentiality Status: Public domain
Published in accordance with Market Rule 2.7.8

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1. INTRODUCTION

1.1. General Information about Rule Changes

Clause 2.5.1 of the Wholesale Electricity Market Rules provides that any person (including the Independent Market Operator) may make a Rule Change Proposal by completing a Rule Change Proposal Form and submitting this to the Independent Market Operator (IMO).

In order for the proposal to be progressed, the change proposal must explain how it will enable the Market Rules to better contribute to the achievement of the wholesale electricity market objectives. The objectives of the market are:

(a) to promote the economically efficient, safe and reliable production and supply of electricity and electricity related services in the South West interconnected system

(b) to encourage competition among generators and retailers in the South West interconnected system, including by facilitating efficient entry of new competitors

(c) to avoid discrimination in that market against particular energy options and technologies, including sustainable energy options and technologies such as those that make use of renewable resources or that reduce overall greenhouse gas emissions

(d) to minimise the long-term cost of electricity supplied to customers from the South West interconnected system

(e) to encourage the taking of measures to manage the amount of electricity used and when it is used

A Rule Change Proposal can be processed using a Standard process or a Fast Track process. The Standard process involves a combined 10 weeks public submission period. Under the shorter Fast Track process the IMO consults with Rule Participants who either advise the IMO that they wish to be consulted or the IMO considers have an interest in the change.

1.2. About this Rule Change

On 11 June 2007, the IMO submitted a Rule Change Proposal titled Calculation of Reserve Capacity Refund.

The Proposal has been processed using the Standard Rule Change Process, described in section 2.7 of the Wholesale Electricity Market Rules.

The Standard Process adheres to the following timelines, outlined in section 2.7 of the Market Rules:

- The Public Submission period is 30 Business Days after the IMO has published the Rule Change Notice for the Proposal.
- The IMO must publish a Draft Rule Change report within 20 Business Days of the end of the submission period.

- The second Public Submission period is for a minimum of 20 Business Days from the date the Draft Rule Change Report is published.
- Within 20 Business Days after the end of the second Public Submission period, the IMO must publish this Final Rule Change Report.

The key dates in processing this Rule Change Proposal are:

- The Rule Change Notice for this Proposal was published on the IMO website on 19 June 2007.
- The first Public Submission period on the Rule Change Proposal ended on 31 July 2007.
- The Draft Rule Change Report was published on 28 August 2007.
- The second Public Submission period was from 29 August to 25 September 2007.
- This Final Rule Change Report was published by the IMO on 23 October 2007.
- The amendments to clauses 4.26.1, 4.26.3 and Chapter 11, contained in section 7 of this Report, will commence on 1 November 2007.

Based on the response received from interested parties, and the IMO's assessment of the proposed changes against the Market Objectives, the IMO's decision is to accept the rule changes as proposed by the IMO in its Draft Rule Change Report.

This Final Rule Change Report on the Rule Change Proposal has been prepared by the IMO in accordance with clause 2.7.8 of the Market Rules.

2. THE RULE CHANGE PROPOSAL

2.1. The Submission

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Date submitted:	11/06/2007
Urgency:	High
Change Proposal title:	Calculation of Reserve Capacity Refund

2.2. Details of the Proposal

The IMO proposed a Rule Change to clarify the wording in the Market Rules that provide for the Reserve Capacity Refund Mechanism. The Reserve Capacity Refund Mechanism Working Group, established by the Market Advisory Committee (MAC), developed the proposed changes in response to identified shortcomings with the present wording of the Rules. Represented on the Group were System Management, Alinta, Premier Power, Perth Energy, Transalta, Synergy, Verve Energy and the IMO. In summary, the main issues that the Group addressed were:

- That the out-workings of the Market Rules wording do not reflect the intention of the Refund Mechanism; and
- The need to clarify the wording describing the Refund Mechanism in the Market Rules.

All facilities that have been assigned Capacity Credits are, unless they are undergoing an approved outage, required to make refunds to the market in the event that they are unable to offer their full capacity through bilateral contracts or into the STEM. The development of the current Refund Mechanism in the Market Rules was based on a number of objectives considered necessary for the success of the market, as follows:

- The level of refunds for each outage should be set at the appropriate level to provide an incentive for generators to meet their Reserve Capacity Obligations.
- There must be a strong incentive to encourage capacity providers to be fully available at peak times but there must also be incentives for good performance at other times of the year, including when scheduled outages reduce the available system capacity.
- Although peaking plants may only be called on to run for a few hours each year, there must be a very strong incentive on peaking plants to deliver capacity when required (because there may be no other spare generation capacity available on the system at that time).
- While refund levels should be high enough to encourage good operational performance, they should not be so high as to deter investment or force capacity providers to include an excessive risk component into their pricing.

It was intended that a facility that experienced a short outage would face a high initial refund. For longer outages, the total refund was intended to be capped by daily,

seasonal and annual caps. More details on the intent of the current Market Rules can be found in the IMO Rule Change Proposal.

However, the way in which the Market Rules were drafted results in the seasonal cap overriding the daily cap and trading interval refund rates under all circumstances. As a consequence, there is uncertainty amongst Market Participants about the interpretation of the Rules and, in practice, a significant reduction in refund levels.

After examining a number of options, the Reserve Capacity Refund Mechanism Working Group considered it desirable that the selected option should give rise to only minimum changes to the Rules. This was considered important to maintain stable market arrangements in the initial period of the market so as to encourage investors and facilitate understanding of the Market. It was also considered important to avoid further complexity and simplify the Rules as far as practicable.

The Working Group concluded that a simpler mechanism would be possible if a single rate were to be applied to each season or part of season. The main elements of the proposed approach were:

- A single refund rate to apply to all peak trading intervals of the season (or part of the season).
- A second refund rate to apply to all off-peak trading intervals in the season.
- No specific seasonal caps.
- An annual cap to be retained equal to the total amount of Reserve Capacity payments made to a facility.

In both the current Market Rules and in the Rule Change Proposal, different refund rates apply to daily peak and off-peak trading intervals. To cap the total level of refunds, while still maintaining appropriate performance incentives for as long as practicable during the capacity year, this differentiation concept was taken further in the Proposal through two other changes.

The first change is that a differentiation is made between business days and non-business days (weekends and public holidays). The maximum demand on non-business days is generally well below that on adjacent business days so the impact of any outage is likely to be less severe on non-business days. For this reason, it was proposed that a different refund rate apply to peak trading intervals (8 am to 10 pm) on non-business days.

The second change is that a distinction is made between the first and second parts of the Hot Season. Due to school and public holidays, there is a significant difference in the peak demand which occurs in December and January, than that occurring in February and March. It was proposed that this be reflected by having different refund rates apply to the first and second parts of the Hot Season.

The Working Group's report is published with this report on the IMO website, http://www.imowa.com.au, and contains further detail about the proposed changes.

2.3. Amending Rules Proposed by the IMO

The IMO proposed the following amendments to clauses 4.26.1, 4.26.3 and Chapter 11 (Glossary):

Market Rule 4.26.1

4.26.1. If a Market Participant holding Capacity Credits fails to comply with its Reserve Capacity Obligations then the Market Participant must pay a refund to the IMO calculated in accordance with the following provisions.

REFUND TABLE

~~**Season**~~	~~**Cold**~~	~~**Intermediate**~~	~~**Hot**~~
~~Dates~~	~~1 April to 1 October~~	~~1 October to 1 December~~	~~1 December to 1 April~~
~~Off-Peak Trading Interval Rate ($ per MW shortfall per Trading Interval)~~	~~$2 \times Y$~~	~~$2 \times Y$~~	~~$2 \times Y$~~
~~Peak Trading Interval Rate ($ per MW shortfall per Trading Interval)~~	~~$8 \times Y$~~	~~$8 \times Y$~~	~~$8 \times Y$~~
~~Maximum Daily Rate ($ per average MW shortfall per Trading Interval over a Trading Day)~~	~~$5 \times Y$~~	~~$5 \times Y$~~	~~$5 \times Y$~~
~~Maximum Seasonal Rate ($ per average MW shortfall per Trading Interval over a Season)~~	~~$0.6 \times Y$~~	~~$0.6 \times Y$~~	~~$1.8 \times Y$~~
~~Maximum Refund~~	~~The total value of the Capacity Credit payments paid or to be paid under these Market Rules to the relevant Market Participant for the 12 Trading Months commencing at the start of the Trading Day of the previous 1 October assuming the IMO acquires all of the Capacity Credits held by the Market Participant and the cost of each Capacity Credit so acquired is determined in accordance with clause 4.28.2(b), (c) and (d) (as applicable).~~		
~~Where:~~ ~~For an Intermittent Facility that has been commissioned: Y equals 0~~ ~~For all other facilities, including Intermittent Facilities that have not been commissioned: Y equals the greater of the Reserve Capacity Price and 85% of the Maximum Reserve Capacity Price for the relevant Reserve Capacity Auction expressed as a $ per MW per Trading Interval figure.~~			

Dates	1 April to 1 October	1 October to 1 December	1 December to 1 February	1 February to 1 April
Business Days Off-Peak Trading Interval Rate ($ per MW shortfall per Trading Interval)	– 0.25 x Y	– 0.25 x Y	– 0.5 x Y	– 0.75 x Y
Business Days Peak Trading Interval Rate ($ per MW shortfall per Trading Interval)	– 1.5 x Y	– 1.5 x Y	– 4 x Y	– 6 x Y
Non-Business Days Off-Peak Trading Interval Rate ($ per MW shortfall per Trading Interval)	– 0.25 x Y	– 0.25 x Y	– 0.5 x Y	– 0.75 x Y
Non-Business Days Peak Trading Interval Rate ($ per MW shortfall per Trading Interval)	– 0.75 x Y	– 0.75 x Y	– 1.5 x Y	– 2 x Y
Maximum Refund	The total value of the Capacity Credit payments paid or to be paid under these Market Rules to the relevant Market Participant for the 12 Trading Months commencing at the start of the Trading Day of the previous 1 October assuming the IMO acquires all of the Capacity Credits held by the Market Participant and the cost of each Capacity Credit so acquired is determined in accordance with clause 4.28.2(b), (c) and (d) (as applicable).			
Where: For an Intermittent Facility that has been commissioned: Y equals 0 For all other facilities, including Intermittent Facilities that have not been commissioned: Y equals the greater of the Reserve Capacity Price and 85% of the Maximum Reserve Capacity Price for the relevant Reserve Capacity Auction, expressed as a $ per MW per Trading Interval figure. This is determined by dividing the Monthly Reserve Capacity Price by the number of Trading Intervals in the relevant month.				

Market Rule 4.26.3

4.26.3 For each Market Participant holding Capacity Credits, the IMO must determine the amount of the refund ("**Capacity Cost Refund**") to be applied for Trading Month m in respect of a Capacity Shortfall as defined in clauses 4.26.2 during that Trading Month. The Capacity Cost Refund is the lesser of:

(a) the Maximum Refund determined in accordance with the Refund Table, less all Capacity Cost Refunds applicable to the Market Participant in previous Trading Months falling in the same Capacity Year as Trading Month m; and

(b) ~~the Maximum Seasonal Rate determined in accordance with the Refund Table, multiplied by the average Trading Interval Capacity Shortfall calculated over the Season within which Trading Month m falls, less the sum of the Capacity Cost Refunds applicable to the Market Participant in~~

~~previous Trading Months which fall in the same Season; and~~

~~(c)~~ ~~the sum of the relevant amounts for Trading Month m, where a relevant amount is calculated for each Trading Day d in Trading Month m and is equal to the lesser of:~~

~~i. the Maximum Daily Rate determined in accordance with the Refund Table for Trading Day d multiplied by the sum over all Trading Intervals t in Trading Day d of the Capacity Shortfall in Trading Interval t; and~~

~~ii.~~ the sum over all Trading Intervals t in Trading Month m ~~Day d~~ of the product of:

~~1~~i. the Off-Peak Trading Interval Rate or Peak Trading Interval Rate determined in accordance with the Refund Table applicable to Trading Interval t; and

~~2~~ii. the Capacity Shortfall in Trading Interval t.

Chapter 11, Glossary

Non-Business Day: A day that is a Saturday, Sunday, or a public holiday throughout Western Australia.

3. SUBMISSIONS RECEIVED IN THE FIRST SUBMISSION PERIOD

The first submission period for this Rule Change Proposal was between 20 June and 31 July 2007. The IMO received submissions from the Office of Energy, Synergy and Verve Energy. A summary of all submissions is listed below. The submissions can be found on the IMO website.

3.1. Market Advisory Committee

The Reserve Capacity Refund Mechanism Working Group's Report was presented to the Market Advisory Committee (MAC) at its meeting on 9 May 2007, before it was formally submitted as a Rule Change Proposal by the IMO.

Of the three refund options that were considered by the Working Group and presented in the report, Verve Energy indicated its preference for the second option in the Working Group's Report, to make the refunds proportional to the amount of demand on the system or proportional to the amount of reserve generation capacity at the time of an outage. Verve Energy considered that this would provide a more market oriented outcome, by linking the refunds to the level of risk existing in the SWIS at the particular time of an outage.

MAC members acknowledged, however, that this second option may create more uncertainty about the refund outcomes for potential investors as it would be influenced by factors outside the Market Participants' sphere of influence (e.g. demand or weather).

MAC also noted that the proposed option would more closely relate refunds to the level of demand or generation capacity available, than the current Market Rules do. The potential to move towards the second option, preferred by Verve Energy, in the longer term was also acknowledged by MAC. It was noted that the IMO intends to review the Reserve Capacity Mechanism after 2010.

With regard to the multipliers to be applied in each season and the introduction of different multipliers for business and non-business days, Transalta noted that both the current and the proposed solution was complicated with numerous multipliers in different situations. Transalta would have preferred a uniform factor of "1". However, MAC considered that this would not provide the appropriate incentives when the system was more at risk at different times during the year.

On balance, MAC generally supported the Working Group's recommendation as a practical and reasonable way forward.

After having developed the Rule Change Proposal based on the recommendations of the Working Group's report, the IMO sent the Proposal to all MAC members for review before submitting it into the formal Rule Change Process. No MAC member objected to the Proposal.

At the MAC meeting on 11 July, members were invited to express their view on the formal Proposal. Verve Energy, Synergy and Transalta indicated that they had issues related to this Rule Change Proposal and planned to submit detailed responses in the public consultation process. The other members of MAC supported the Rule Change.

3.2. Submission from Office of Energy

The Office of Energy (OOE) expressed its support of the proposed Rule Change. In its submission, OOE noted that the current Rule Change Proposal has been subject to extensive consultation, with the proposed refund calculations being developed and submitted to the IMO by the Reserve Capacity Refund Mechanism Working Group.

The OOE also noted that the Working Group considered several alternatives in developing the proposed Rule Changes, and reached an agreement that the Proposal assessed in this report best reflected the intent of the Reserve Capacity Refund Mechanism as outlined in section 2.2 of this report.

The OOE supported the statements made by the IMO, with respect to the impact of the Rule Change on the Wholesale Electricity Market Objectives.

3.3. Submission from Synergy

Synergy expressed its support for the Rule Change Proposal. Synergy noted that it is essential to Synergy and its customers that Market Generators have incentives to deliver capacity when required and that the Market Rules operate to encourage capacity providers to be fully available at peak times.

Synergy also considered that the Rules must provide an incentive for ongoing performance at other times of the year, particularly when scheduled outages constrain the available system capacity. Refund levels should be set at a level that provides the appropriate incentives for generators to meet their Reserve Capacity Obligations.

Synergy submitted that the IMO's proposed changes will achieve this outcome and also noted that the Rule Change Proposal more closely reflects the original intent of the Refund Mechanism, as discussed at the time the Market Rules were originally contemplated.

Synergy considered that the Rule Change Proposal will promote the reliable production and supply of electricity in the SWIS and that this is consistent with Market Objective (a).

3.4. Submission from Verve Energy

In its submission, Verve Energy considered that the expressed intention of the Rule Change is to provide incentive for generators to meet their Reserve Capacity Obligations and encourage capacity to be fully available at peak times.

Verve Energy submitted that, while it was represented on the Working Group established to consider the issue, such an arrangement was "inappropriate for this matter as Verve Energy has most to lose from the proposed outcome and was outnumbered on the working group by other market participants who stand to benefit from the increased level of refunds proposed." Verve Energy also argued that the Working Group was not in a position to perform the rigorous analysis required for issues with such a significant financial impact on participants.

Verve Energy expressed its preference for a risk-based solution (option 2), which was discussed by the Working Group but rejected.

In addition, Verve Energy submitted that it is not evident that sufficient consideration has been given to the question of whether the proposed increase in refund level will prevent generators from earning economic profit and/or serve as a disincentive to the installation of new capacity. Verve Energy indicated that the Working Group canvassed this issue, and expressed a subjective view that it would not, but questioned if an appropriate analysis confirming this had been conducted.

Verve Energy considered that neither the current nor the proposed methodology for calculating the Reserve Capacity Refund meets the prescribed Market Objectives. Verve Energy claimed that it has not been demonstrated that the proposed Rule Change will improve market efficiency, and in Verve Energy's assessment, it is more likely to result in further distortion and loss of efficiency.

Verve Energy also argued that the proposed Rule Change clearly undervalues the availability of capacity during times when the system is short of supply through the averaging of capacity refund penalties on a seasonal basis. Conversely, according to Verve Energy, the value of maintaining available capacity when the system has a surplus of capacity will be overstated under the Rule Change Proposal.

According to Verve Energy's submission, the proposed Rule Change also significantly increases the expected total cost of capacity refunds. Verve Energy indicated that under the proposed Rules its refunds would increase from $14 million to $20 million.

3.5. Public Forums and Workshops

No public forums or workshops were held in relation to this Rule Change. However, the Working Group held a number of workshops before the Proposal was submitted to MAC for consideration and to the IMO.

3.6. The IMO's Response to the First Round of Submissions

MAC, Synergy and the Office of Energy supported the changes. Verve Energy indicated concern with the proposed changes. Following is the IMO's response to the issues raised by Verve Energy, as published in the Draft Rule Change Report:

Verve Energy's Preference for the Second Option Considered by the Working Group

In its submission, Verve Energy restated its view also indicated at the MAC meeting on 9 May 2007, expressing its preference for a "market based" solution. Such an option was canvassed by the Working Group but was rejected in favour of the solution proposed in the Rule Change Proposal. The solution preferred by Verve Energy was for refunds to be made proportional to demand on the system, or proportional to the generation capacity reserve margin at the time of an outage.

The Working Group considered that this option would link the level of refunds to the level of system risk arising from a particular outage. However, the Working Group was concerned that, while this may be an attractive concept, it would also increase the uncertainty and therefore risk to generators and investors as to the expected level of their refunds, which under this approach would be driven by the system wide risk. That is, the refund incurred from an outage would be dependant on the availability of other

generators and the demand during the outage period, thus making it impossible to accurately forecast the financial implication of a forced outage.

The option proposed by the Working Group allows generators to estimate the cost of any forced outage and take this into consideration when assessing the total cost and benefits of further investment in maintenance, whilst still linking refunds to system risk in a rudimentary manner.

The approach preferred by Verve Energy would also require a thorough reworking of the Refund Mechanism and the supporting Market Rules. It is unlikely that this could be achieved prior to the 2007/08 summer period. In addition, the preference from the industry was to amend the current Rules through minimal changes to the Mechanism, rather than a wholesale rewrite.

Whether the Change will Remove Economic Profit and Reduce Market Efficiency

Verve Energy submitted that it is not evident that sufficient consideration has been given to the question of whether the proposed increase in refund level will prevent generators from earning economic profit and/or serve as a disincentive to the installation of new capacity. Verve Energy was also concerned that it has not been demonstrated that the proposed Rule Change will improve market efficiency.

The intent of the Refund Mechanism is to ensure system capacity is available in the South West Interconnected System (SWIS) at all times and particularly during the times it is most needed. The objective is to make it more financially beneficial for generators to secure fuel supplies and to perform regular maintenance than to incur refunds for forced outages due to fuel unavailability or due to plant failures that could have been avoided if regular maintenance had been performed.

The IMO considered that increased clarity in the Rules will be beneficial to new investors, as the Refund Mechanism will be clearer and unambiguous. Further, by providing an increased incentive to have all certified capacity available during peak SWIS intervals, reliability and security of supply will be achieved in an efficient manner, by avoiding the need for increases in the plant reserve margins and thus additional investment in new capacity.

Undervaluing of Available Capacity During Peak Times

Verve Energy also argued that the proposed Rule Change undervalues the availability of capacity during times when the system is short of supply, through the averaging of capacity refund penalties on a seasonal basis. Conversely, according to Verve Energy, the value of maintaining available capacity when the system has a surplus of capacity will be overstated under the Rule Change Proposal.

The IMO considered that, the amended refund rates will more clearly differentiate between refunds occurred during system peak periods and during off peak periods than the current Market Rules. Thus, the new refund rates will more clearly value availability during SWIS peak periods. This is assisted by both the differentiation between business days and non-business days, and the distinction between the first and second halves of the Hot Season. Implementation of Option 2, which is preferred by Verve Energy, may more accurately reflect shortage of supply, but this benefit is offset by reduced predictability of refunds and increased implementation timeframe.

Total Payments

According to Verve Energy's submission, the proposed Rule Change also increases the expected total cost of capacity refund penalties.

With regard to the total cost of capacity refunds, the IMO noted that, due to the seasonal cap overriding the daily and trading interval refund rates under all circumstances, the refunds under the current Rules are lower than what was intended when the Rules were developed. Had the current Rules functioned as intended, in practice the total refund amounts would have been higher than they currently are. The IMO noted that the refunds under the proposed amendments, as indicated by Verve Energy in its submission, represent an increase from approximately 3.5% to around 5% of the total Reserve Capacity payments received by Verve Energy.

The IMO also noted that the new Mechanism will still retain an annual cap, ensuring that no participant will incur refunds exceeding the total Reserve Capacity Credits received.

Another intention of the Refund Mechanism, as also noted by the OOE and Synergy in their submissions, is to provide incentives for good performance at other times of the year, when scheduled outages reduce the available system capacity. Therefore, forced outages during these periods should also incur refunds - at a lower level than during the peak season, but significant enough to discourage unplanned outages throughout the year.

4. THE IMO'S DRAFT DECISION

Based on the submissions received and its assessment against the Market Objectives, the IMO's draft decision was to accept the proposed changes to clauses 4.26.1 and 4.26.3 as proposed in the Rule Change Proposal, and presented in section 7 of this Report.

The IMO made its draft decision on the basis that the resulting Amending Rules will allow the Market Rules to better address the Market Objectives.

5. SUBMISSIONS RECEIVED IN THE SECOND SUBMISSION PERIOD

Following the Draft Rule Change Report publication on the IMO website, the second submission period was between 29 August and 25 September 2007. The IMO received two submissions, from Alinta Sales and the Office of Energy. A summary of the submissions is provided below. The submissions can be found on the IMO website.

5.1. Submission from Alinta Sales

Alinta was of the view that the Market Rules as intended currently provide a strong incentive on generators to deliver on their reserve capacity obligations. Alinta did not agree with the interpretation that the current multipliers in the refund table in clause 4.26.1 are overridden by the seasonal cap. However, Alinta did agree that any source of doubt over the interpretation of the Market Rules should be removed, and therefore expressed its support of the changes, as proposed by the IMO in the Draft Rule Change Report.

Further, Alinta submitted that it would have preferred to have all multipliers equal or greater than one in the amended table in clause 4.26.1. Alinta considered that this would provide a sharper incentive to bring generators back online in the short and medium term. Alinta believes this to be more important than ensuring that the annual cap is not reached until the end of a season.

Alinta considered that the IMO proposed changes will better facilitate Market Objectives (a), (b), and (d).

5.2. Submission from Office of Energy

The Office of Energy (OOE) restated its support for the Rule Change Proposal. The OOE submitted that its support is based on the proposal being subject to extensive consultation, with the proposed refund calculations being developed and submitted to the IMO by the Reserve Capacity Refund Mechanism Working Group. The OOE noted that the Working Group considered several alternatives in developing the proposed Rule Change, and that it agreed that the current proposal best reflected the intent of the Reserve Capacity Refund Mechanism.

5.3. The IMO's Response to the Second Round of Submissions

Both Alinta and the Office of Energy supported the changes as published in the Draft Rule Change Report. However, while expressing its support of the changes, Alinta also raised a number of issues, both regarding the current Rules and the proposed amendments. Following is the IMO's response to the issues raised by Alinta:

The Seasonal Cap Overriding the Daily Caps

Alinta submitted that its interpretation of the current Rules is that the seasonal cap does not override the multipliers in the refund table. The IMO's interpretation of the Rules is that the seasonal cap does override the daily caps and the trading interval refund rates

under all circumstances. This interpretation was supported by the IMO Market Systems Auditor in April 2007, confirming that the calculation performed by the IMO's Market System, where the seasonal cap does override the daily caps in all circumstances, was a correct implementation of the out-working of the Market Rules.

Alinta's concerns confirm that there is uncertainty about the interpretation of the current Rules - something which this change will clarify. The IMO notes that Alinta expressed its support of the change for this reason.

Using multipliers equal to or higher than one

Alinta submitted that:

> *"Alinta understands that the driver for setting some of the new refund multipliers to less than unity was to ensure that a generator on an extended outage does not hit the annual cap on the capacity credit refunds "too early" and thereby leaving no incentive to get the generator back online if the outage is a very lengthy one. However, Alinta considers it more important to have a fairly sharp incentive in the short to medium term to get generators back online rather than ensuring there is some incentive spanning the entire year. If the incentive is strong even in the short term, it would be reasonable to assume that that would drive delivery of more reliable plant. Alinta would therefore prefer to have all refund multipliers equal or greater than one."*

The IMO agrees with Alinta that it is important to have strong incentives to bring generators back online in the short term. Implementing Alinta's proposal to set all refund multipliers equal or greater than one would also ensure that a generator with a forced outage will be exposed to refunds at least equal to the amount of Capacity Credits they are paid for the period of the forced outage, regardless of when the outage occurs.

The IMO has examined the outcome of adjusting all refund multipliers to equal at least one, while retaining the level of the rest of the multipliers suggested by the Reserve Capacity Refund Mechanism Working Group and in the IMO's Draft Rule Change Report. This would result in a generator with a full forced outage commencing on 1 October reaching its annual refund cap by 19 March (the hot season ends on 31 March).

The IMO considers that it is very important to ensure full generator availability during the hot season, that is, to retain the incentive to get a generator suffering a prolonged outage back online in that season. The IMO conducted additional analysis and considered that in order to accommodate Alinta's proposal, other multipliers in the proposed refund table needed to be adjusted.

The IMO requested Market Participants to consider Alinta's proposed further amendments to raise all multipliers lower than one in the IMO's proposed refund table to one. A notice seeking further consultation was published on the IMO's web site and further comments sought by 15 October 2007. MAC was also requested to consider the further amendments proposed by Alinta at its meeting on 10 October 2007.

The general consensus in response the IMO's request was that, since the changes proposed by the IMO in its Draft Rule Change Report had already been through extensive consultations by the industry, it is not appropriate to amend the refund table as proposed by Alinta at this point in time.

The refund table proposed by the IMO in its Draft Rule Change Report was considered by MAC to be the preferred option. MAC members also emphasised their preference to

have the level of refunds linked to the demand on the system and noted that the notion of adjusting to one all multipliers that are currently proposed to be less than one would move the refund methodology further away from this principle.

6. THE IMO'S ASSESSMENT AND THE IMO's FINAL DECISION

Apart from of Alinta Sales' preference for having multipliers of at least one in the refund table, no interested party expressed any concerns regarding the amendments to the Market Rules as outlined in the Draft Rule Change Report. In their submissions, both Alinta Sales and the Office of Energy expressed their support of the changes.

6.1. The IMO's Assessment of the Rule Change Proposal

According to clauses 2.4.2 of the Market Rules *"the IMO must not make Amending Rules unless it is satisfied that the Market Rules, as proposed to be amended or replaced, are consistent with the Wholesale Market Objectives".*

The IMO's assessment of the Rule Change Proposal against each of the Market Objectives, which was also published in the IMO's Draft Report, is as follows:

(a) *to promote the economically efficient, safe and reliable production and supply of electricity and electricity related services in the South West interconnected system.*

For the Reserve Capacity Mechanism to operate effectively, it is essential that there be a strong incentive for Market Generators to be fully available at peak times. At the same time there must also be an incentive for good performance at other times of the year when scheduled outages reduce available system capacity.

Refund levels should be set appropriately to provide appropriate incentives for generators to maintain reliable plant, and the proposed changes better reflect the incentive structure the Refund Mechanism was intended to provide.

Market efficiency will be increased by providing strong incentives to maintain plant reliability, thus avoiding the need to increase the reserve margins on the system and for additional investments in new capacity.

The IMO considers, therefore, that the proposed Rule Changes would further the achievement of Market Objective (a), by promoting the reliable production and supply of electricity in the SWIS in a cost efficient way. In their submissions, Alinta, the Office of Energy and Synergy supported this assessment.

(b) *to encourage competition among generators and retailers in the South West interconnected system, including by facilitating efficient entry of new competitors.*

The proposed changes would remove the current uncertainty amongst Rule Participants and investors about the interpretation of the Rules. The changes would also reduce uncertainty by having a clear ex-ante signal for maintenance under which generators can maintain some control over the level of their refunds. The IMO considers that the proposed changes, therefore, are consistent with the operation of objective (b) of the Market Objectives.

(c) *to avoid discrimination in that market against particular energy options and technologies, including sustainable energy options and technologies such as those that make use of renewable resources or that reduce overall greenhouse gas emissions.*

The IMO considers that the proposed changes do not impact on, and therefore are consistent with, the operation of objective (c) of the Market Objectives.

(d) *to minimise the long-term cost of electricity supplied to customers from the South West interconnected system*

The IMO considers that the proposed Rule Changes will result in refund levels that are sufficient to encourage good operational performance but not so high as to deter investment or force capacity providers to include an excessive risk component into their pricing. The changes will minimise the costs to electricity consumers that result from reliability and security issues.

The IMO considers that the change is consistent with the operation of objective (d) of the Market Objectives.

(e) *to encourage the taking of measures to manage the amount of electricity used and when it is used.*

The IMO considers that the proposed changes do not impact on, and therefore are consistent with, the operation of objective (e) of the Market Objectives.

In accordance with Clause 2.4.3(b) of the Market Rules, in deciding whether or not to make Amending Rules, the IMO must also have regard to the practicality and cost of implementing the Amending Rules.

The proposed changes to clauses 4.26.1 and 4.26.3 will require changes to the Wholesale Electricity Market System operated by the IMO. The cost of implementing these changes has been estimated at around $20,000.

The IMO has found this cost to be acceptable and considers that the benefits the change will bring to the market and electricity consumers will outweigh the cost. No other costs have been identified in relation to this change during the consultation process.

6.2. The IMO's Final Decision

The IMO's final decision is to:

- Accept the proposed changes to clauses 4.26.1, 4.26.3 and Chapter 11, as outlined in section 7 of this Report.

The IMO makes its final decision on the basis that the resulting Amending Rules will allow the Market Rules to better address the Market Objectives.

The wordings of the relevant Amending Rules are presented in section 7 of this Report.

6.3. Amending Rules Commencement

The amendments to clauses 4.26.1, 4.26.3 and to Chapter 11 of the Wholesale Electricity Market Rules will commence at **08.00am** on **1 November 2007**.

7. AMENDING RULES

The following clauses are amended (~~deleted wording~~, new wording):

7.1. Clause 4.26.1

4.26.1 If a Market Participant holding Capacity Credits fails to comply with its Reserve Capacity Obligations then the Market Participant must pay a refund to the IMO calculated in accordance with the following provisions.

REFUND TABLE

~~Season~~	~~Cold~~	~~Intermediate~~	~~Hot~~
~~Dates~~	~~1 April to 1 October~~	~~1 October to 1 December~~	~~1 December to 1 April~~
~~Off-Peak Trading Interval Rate ($ per MW shortfall per Trading Interval)~~	~~$2 \times Y$~~	~~$2 \times Y$~~	~~$2 \times Y$~~
~~Peak Trading Interval Rate ($ per MW shortfall per Trading Interval)~~	~~$8 \times Y$~~	~~$8 \times Y$~~	~~$8 \times Y$~~
~~Maximum Daily Rate ($ per average MW shortfall per Trading Interval over a Trading Day)~~	~~$5 \times Y$~~	~~$5 \times Y$~~	~~$5 \times Y$~~
~~Maximum Seasonal Rate ($ per average MW shortfall per Trading Interval over a Season)~~	~~$0.6 \times Y$~~	~~$0.6 \times Y$~~	~~$1.8 \times Y$~~
~~Maximum Refund~~	~~The total value of the Capacity Credit payments paid or to be paid under these Market Rules to the relevant Market Participant for the 12 Trading Months commencing at the start of the Trading Day of the previous 1 October assuming the IMO acquires all of the Capacity Credits held by the Market Participant and the cost of each Capacity Credit so acquired is determined in accordance with clause 4.28.2(b), (c) and (d) (as applicable).~~		
~~Where:~~ ~~For an Intermittent Facility that has been commissioned: Y equals 0~~ ~~For all other facilities, including Intermittent Facilities that have not been commissioned: Y equals the greater of the Reserve Capacity Price and 85% of the Maximum Reserve Capacity Price for the relevant Reserve Capacity Auction expressed as a $ per MW per Trading Interval figure.~~			

Dates	1 April to 1 October	1 October to 1 December	1 December to 1 February	1 February to 1 April
Business Days Off-Peak Trading Interval Rate ($ per MW shortfall per Trading Interval)	– 0.25 x Y	– 0.25 x Y	– 0.5 x Y	– 0.75 x Y
Business Days Peak Trading Interval Rate ($ per MW shortfall per Trading Interval)	– 1.5 x Y	– 1.5 x Y	– 4 x Y	– 6 x Y
Non-Business Days Off-Peak Trading Interval Rate ($ per MW shortfall per Trading Interval)	– 0.25 x Y	– 0.25 x Y	– 0.5 x Y	– 0.75 x Y
Non-Business Days Peak Trading Interval Rate ($ per MW shortfall per Trading Interval)	– 0.75 x Y	– 0.75 x Y	– 1.5 x Y	– 2 x Y
Maximum Refund	The total value of the Capacity Credit payments paid or to be paid under these Market Rules to the relevant Market Participant for the 12 Trading Months commencing at the start of the Trading Day of the previous 1 October assuming the IMO acquires all of the Capacity Credits held by the Market Participant and the cost of each Capacity Credit so acquired is determined in accordance with clause 4.28.2(b), (c) and (d) (as applicable).			

Where:

For an Intermittent Facility that has been commissioned: Y equals 0

For all other facilities, including Intermittent Facilities that have not been commissioned: Y equals the greater of the Reserve Capacity Price and 85% of the Maximum Reserve Capacity Price for the relevant Reserve Capacity Auction, expressed as a $ per MW per Trading Interval figure. This is determined by dividing the Monthly Reserve Capacity Price by the number of Trading Intervals in the relevant month.

7.2. Clause 4.26.3

4.26.3 For each Market Participant holding Capacity Credits, the IMO must determine the amount of the refund ("**Capacity Cost Refund**") to be applied for Trading Month m in respect of a Capacity Shortfall as defined in clauses 4.26.2 during that Trading Month. The Capacity Cost Refund is the lesser of:

(a) the Maximum Refund determined in accordance with the Refund Table, less all Capacity Cost Refunds applicable to the Market Participant in previous Trading Months falling in the same Capacity Year as Trading Month m; and

(b) ~~the Maximum Seasonal Rate determined in accordance with the Refund Table, multiplied by the average Trading Interval Capacity Shortfall calculated over the Season within which Trading Month m falls, less the sum of the Capacity Cost Refunds applicable to the Market Participant in previous Trading Months which fall in the same Season; and~~

~~(c)~~ ~~the sum of the relevant amounts for Trading Month m, where a relevant amount is calculated for each Trading Day d in Trading Month m and is equal to the lesser of:~~

~~i. the Maximum Daily Rate determined in accordance with the Refund Table for Trading Day d multiplied by the sum over all Trading Intervals t in Trading Day d of the Capacity Shortfall in Trading Interval t; and~~

~~ii.~~ the sum over all Trading Intervals t in Trading Month m ~~Day d~~ of the product of:

~~1~~i. the Off-Peak Trading Interval Rate or Peak Trading Interval Rate determined in accordance with the Refund Table applicable to Trading Interval t; and

~~2~~ii. the Capacity Shortfall in Trading Interval t.

7.3. Chapter 11 Glossary

Non-Business Day: A day that is a Saturday, Sunday, or a public holiday throughout Western Australia.